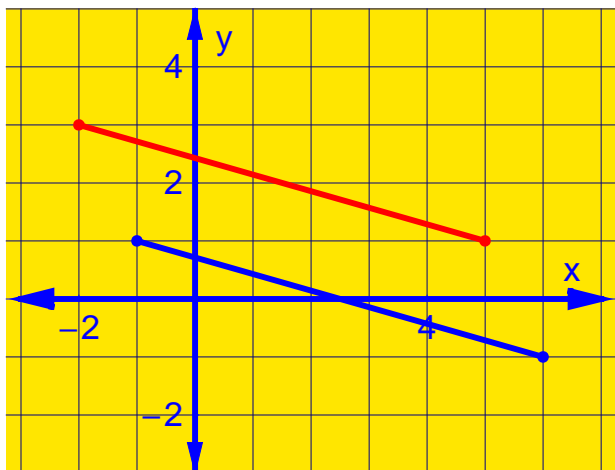


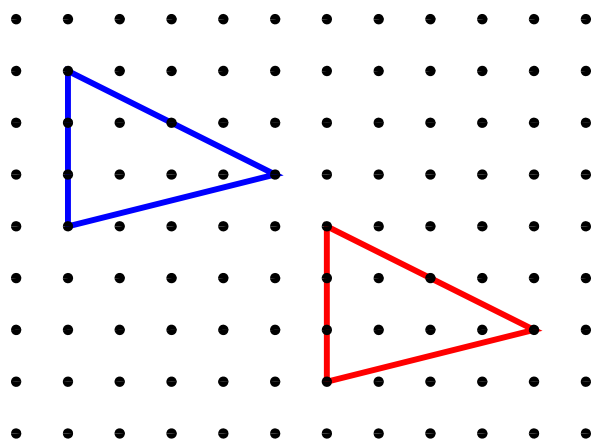
Worksheet 14.2: Translations

In each diagram, the blue figure is the image of the red figure. Use vector notation to represent each translation.

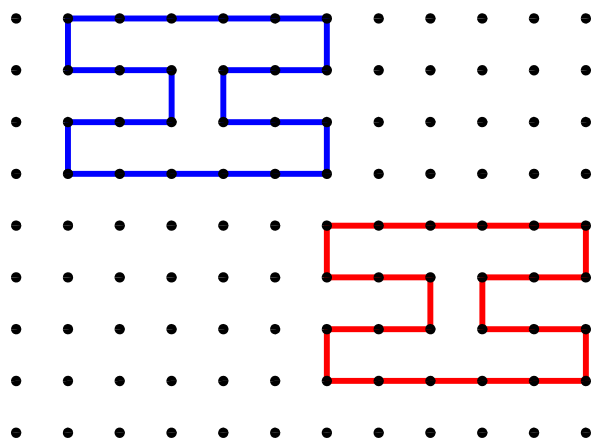
1.



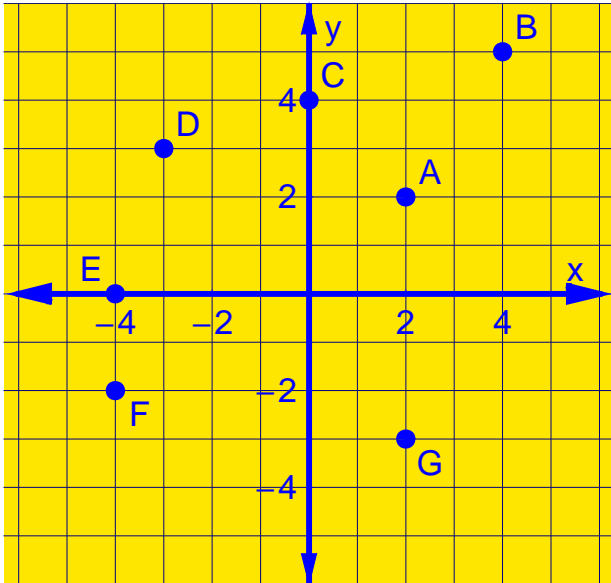
2.



3.



Refer to the figure below.



4. What is the image of D under the translation $\langle 3, 1 \rangle$?
5. What vector describes $F \rightarrow A$?
6. What is the image of C under the translation $\langle -4, -4 \rangle$?
7. What vector describes $H \rightarrow B$?
8. What is the image of A under the translation $\langle -5, 0 \rangle$?
9. What vector describes $C \rightarrow F$?

Find a single translation that has the same effect as each composition of translations.

10. $\langle 2, 6 \rangle$ followed by $\langle -4, -9 \rangle$
11. $\langle -3, 2 \rangle$ followed by $\langle 3, 7 \rangle$.